David P. Ogden

Cannon and Conversation

Preserving and Interpreting Seashore Technological Change

Gulf Islands National Seashore does not seem like a place where you would encounter great technological wonders. Yet, amid the sparkling white sands of the central Gulf coast lie the scattered remains of an army post affected by technological change. Fort Pickens, on Santa Rosa Island in the Florida panhandle, was constructed between 1829 and 1834 as part of the U.S. coastal defense system. Interpreting the technological significance of Fort Pickens has led to close cooperation between interpreters and cultural resource managers.

Cannons remained unchanged from the 15th to the 19th century. For more than 300 years, fortifications were designed in this unchanging environment. By the time of the American fortification program in the early-19th century, forts were only vulnerable to protracted army sieges. They were the perfect defense against naval enemies.

This changed during the American Civil War. By 1865, rifled cannon and ironclad warships had rendered masonry forts obsolete. In the 1880s and 1890s the U. S. replaced masonry forts with simpler reinforced concrete structures. While the structures were simplified, the weapons mounted on them were vastly more complex than the cannon of the pre-Civil War era. The weapons for these concrete forts, called Endicott batteries, represented a great technological leap. Weighing as much as 58 tons, these guns could fire projectiles that were twice as heavy and could go three times farther than the largest cannon in the pre-Civil War arsenal. Large carriages raised the guns over walls for firing and lowered them for reloading. The era of seacoast defense closed at the end of World War II. The development of aircraft and nuclear weapons rendered large coastal artillery obsolete. Most artillery bases were closed in the late 1940s, with the weapons and structures sold for scrap.

When Gulf Islands National Seashore was established 30 years later, America's seacoast forts had faded into obscurity. With a few notable exceptions, little was known of what had once been the core of our coastal defense. Efficient salvaging operations removed most of the material that made the sites understandable. Often, later fortifications built within original structures added to the confusion. These conditions presented formidable challenges for both interpretation and resource management.

For interpreters, little information was available on seacoast forts overall, and Fort Pickens in particular. Resource managers lacked the information needed to set preservation priorities and combat the corrosive effects of the marine environment. NPS historians addressed this problem by combing the National Archives to compile historic structure reports and a map file. These documents provided information for both interpretive and resource management needs. Early plans to restore Fort Pickens were abandoned when the park discovered that most of the damage was due to historic activities. Investigations also revealed that the Endicott battery in the parade of the old fort was a historic structure in its own right. The structure was stabilized instead, with restoration efforts directed to nearby Fort Barrancas. Explaining this resource management decision to visitors is an excellent way to drive home the idea of changing technologies.

Massive searchlight towers like this one at Fort Pickens in 1918 were important parts of the American coastal defense system. Visitors helped park staff understand the operation of these towers. Photo courtesy Gulf Islands National Seashore.

One interpretive solution added to the resource management challenges. Nothing makes a fort more interesting than a gun to go with it. The park collection contains several cast iron cannon, including a six-inch gun on a rare disappearing carriage. Sea air regularly assaults these weapons. For the most part, preserving them requires little more than maintaining a good coat of paint. It is seldom that simple, however.

The six-inch gun was mounted in firing position and held in place by a massive counterweight in a well beneath the mount, hidden from view. Sometime after the installation in 1976, water began seeping into the well. The corrosion went undetected for many years and was extensive when discovered. The conservation of this piece took three years and was done under contract by the Florida Research and Conservation Laboratory.

The 20,000-pound barrel was removed first, followed by 47,000 pounds of carriage and 10 tons of lead counterweight. Barrel and carriage were shipped to Tallahassee, where they were placed in an electrolysis tank. Following electrolysis, the components were sandblasted and then painted with rust inhibitor and industrial coatings. The gun and carriage were then returned to Battery Cooper and remounted, this time in the lowered position.

However, the guns alone could not tell the park story. The public is most interested in stories about people. We had plenty of stories from the Civil War at Fort Pickens, but the real story was much larger than that. The coast artillery had been at Fort Pickens less than 50 years ago. That means that some people who had been there might still be living, and they would have stories.

One day an interpreter encountered an elderly man in the fort who said he had been there during World War II. The interpreter asked him if he would mind giving an interview, and an oral history project was born. Over the next several years, park interpreters interviewed dozens of veterans. The veterans donated hundreds of photographs to the park collection, providing material for several exhibits, an illustrated talk, and a booklet published by our cooperating association. The oral histories put a human face to defense technology and solved a critical problem. Few studies of coastal artillery were written in the 20th century. As a result, the veterans were the only sources for some information.

My favorite example involved the searchlight operations. When one man told of his duty with the searchlight battery, park staff asked where they were. He responded that we had been driving past them every time we went to work. The lights were on retractable towers, so they could be hidden from prying eyes during the day and raised at night. To accomplish this required a steel tower and three blocks of concrete. One block was the base of the tower; one was for the light to rest upon in lowered position; the third block was the counterweight. The steel had been scrapped, but the blocks remained.

We had no idea what the mysterious trio of concrete blocks was—and likely would not have known for some time to come except for that one conversation. The man described the operations, including the night they accidently reversed the light and illuminated the navy base in the harbor instead of the Gulf of Mexico. He also had photographs, which he graciously lent for copying.

The cannon collection provides both the hook and tangible evidence of the evolution of the weaponry. The oral histories preserve what had been an intangible resource and add the human element to the story. It is this blending of interpretation and resource management that makes it possible to preserve and relate the unique tale of a technology that ended in our time.

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The Western Reserve Historical Society is planning an expansion that will include a new museum of transportation and industry to open in 2001 at Cleveland's downtown lake front. This new museum will encompass about 165,000 square feet, including a large exhibition hall, special effects theater, learning areas, and public spaces. The core collection for this new museum is the Society's Crawford Auto and Aviation Museum, though the Society expects to acquire several large-scale artifacts, ranging from the World War II era Corsair fighter-bomber which won the 1946 Cleveland Air Races to a working 1937 Cleveland diner restaurant.

Plans for the museum are just being formulated, but senior staff on the planning team are committed to building a new kind of museum complex that moves dramatically away from traditional approaches to display and interpretation. Selection of external design firms, media producers, and fabrication companies began in the fall of 1997.

A specific site for the museum is still being worked out with the City of Cleveland, but it will be close to the Rock & Roll Hall of Fame and Burke Lakefront Airport, the city's active downtown airport. For information contact Ed Pershey, Task Force Director, Crawford Museum of Transportation and Industry, Western Reserve Historical Society, 10825 East Boulevard, Cleveland, OH, 44106; 216-721-5722, ext 228 or <pershey@en.com>.